

Abstract

There is evidence that endorsing higher level of offense-supportive cognitions is associated with contact sexual offending (Helmus, Hanson, Babchishin, & Mann, 2013). Such an association assumes the construct of cognitions as unidimensional, thus ignoring the possibility that specific subtypes of cognitions exists and that certain may be criminogenic. To investigate this possibility, the current study aimed at examining the associations between criminal behaviors and cognitive themes found in the discourse of men who engage in sexual offenses against children over the internet. Through the discourse of a sample of 60 men with online child sexual exploitation material and solicitation offenses, Paquette (2018) previously identified eight cognitive themes: *Uncontrollability*, *Nature of harm*, *Child as sexual being*, *Child as partner*, *Dangerous world*, *Entitlement*, *Virtual is not real*, and *Internet is uncontrollable*. These themes were not investigated for their criminogenic nature. Thus, in the current study, bivariate analyses were used to determine whether these cognitive themes were linked to three indicators of criminal behaviors: the extent of their criminal charges, the diversity of their offending behaviors and the nature of contact with their victims. Results suggest that, taken as a whole, online sexual offense-supportive cognitions may not be criminogenic. Moreover, only cognitive themes related to antisocial orientation and atypical sexuality were found linked with criminal behaviors, although associations found remain limited. Findings and associated implications are further discussed for research and clinical purposes.

Keywords: cognitive distortion, implicit theory, child exploitation material user, child luring offender, internet sexual offender

Men who sexually offend against children are presumed to hold a variety of beliefs about themselves, others, and the world which are hypothesized to facilitate their offending behaviors (Ward, 2000; Ward & Keenan, 1999). There is empirical evidence that these men express or endorse offense-supportive statements (e.g., Bumby, 1996; Marziano, Ward, Beech, & Pattison, 2006; Paquette, Cortoni, Proulx, & Longpré, 2014; Seto, Reeves, & Jung, 2010) and that endorsing an overall higher number of offense-supportive statements is associated with contact sexual offending (Helmus, Hanson, Babchishin, & Mann, 2013). Among men with online sexual offenses against children, initial studies provided knowledge on the content of cognitions they express (e.g., Bartels & Merdian, 2016; Howitt & Sheldon, 2007; Paquette, 2018), but none investigated whether specific types of cognitions are associated with their involvement in criminality. Thus, in order to have a better picture of the role of cognitions in online sexual offending against children, the present exploratory study examines the associations between offense-supportive cognitive themes and indicators of criminality among a sample of men who had engaged in online child sexual exploitation material and solicitation offenses.

Defining Criminogenic Cognitions

Abel and his colleagues (Abel, Becker, & Cunningham-Rathner, 1984) first suggested that men who sexually offend against children may hold criminogenic cognitions – referred to as *cognitive distortions* – which would allow them to reconcile the discrepancy between their sexual interest for children and societal norms. The authors defined these cognitions as “an individual’s internal processes, including the justifications, perceptions and judgments used by the sex offender to rationalize his child molestation behavior” (Abel, Gore, Holland, Camp, Becker, & Rathner, 1989, p. 137); a definition that encompasses several psychological phenomena – beliefs, justifications, perceptions, judgements, and rationalizations. Over the

years, additional psychological constructs have been added to this definition, including attitudes (Helmus et al., 2013), excuses (Pollock & Hashmall, 1990), defensiveness (Rogers & Dickey, 1991), denials and, minimizations (Bumby, 1996). As a result of such amalgamation, researchers have raised the lack of precise operationalization of the cognitive distortions' construct; all these definitions are referring to various cognitive constructs, such as excuse-making, pro-criminal attitudes, or denial (Gannon, Ward, & Collie, 2007; Maruna & Mann, 2006) that may, or may not, all be criminogenic by nature.

Cognitive distortions have long been an important target treatment with sexual offending population (Marshall, Marshall, Serran, & Fernandez 2006; Ó Ciardha & Gannon, 2011), although their role in sexual offending still remains unclear. Helmus and her colleagues' (2013) were the first to specifically examine the association between endorsing an overall higher level of offense-supportive cognitions and contact sexual offending. They found a small but significant association. This small effect size could be interpreted by the fact that data used were aggregated from studies using a variety of constructs defined as cognitive distortions that were, in turn, measured through psychometric instruments developed based on inconsistent definitions of the construct. A way to better understand the role of cognitions in sexual offending could be to unravel the overall construct to examine whether different types of cognitions are linked to sexual offending.

The idea that only specific types of cognitions would be criminogenic has already been raised by some researchers. A first perspective suggests that only cognitions reflective of positive *evaluations* or *attitudes* towards sexual offending behaviors may be criminogenic. While there is empirical evidence supporting this idea (Hermann & Nunes, 2018; Hermann, Nunes, & Maimone, 2018; Nunes, Hermann, & Ratcliffe, 2013; Nunes, Hermann, White, Pettersen, &

Bumby, 2018), there is also evidence supporting the link between other types of cognitions and sexual offending, regardless of what these cognitions really are. Nunes et al. (2018) examined the nature of cognitions measured by one widely used psychometric instrument designed to assess cognitive distortions (i.e., RAPE scale; Bumby, 1996) and concluded that it did not measure attitudes towards sexual offending. However, they found a significant association between, whatever cognitive construct is being measured, and sexual offending. Their research design did not permit to further investigate the nature of the cognitions measured by this scale, nor whether other types of cognitions have different roles in sexual offending.

Another perspective distinguishes underlying deep beliefs from post-hoc statements. The latter cognitions (e.g., excuse-making, denial) are presumed to be used by offenders to preserve self-esteem and avoid the consequences of illegal behaviors rather than reflecting actual criminogenic beliefs (see Maruna & Mann, 2006). In a meta-analysis, Hanson and Morton-Bourgon (2005) found no specific association between denial and sexual reoffending. The authors noted that excuse-making by men who sexually offend provides at least some indication that they perceive sexual offending as wrong. Given this absence of association between some post-hoc statements and sexual offending behaviors, it has been suggested to focus on “cognitions that most probably contribute to the facilitation and the maintenance of sexual offending or general criminality” (Ó Ciardha & Gannon, 2011, p.131). They are hypothesized to be criminogenic cognitions existing before the crime and thus representing individuals’ ‘true’ beliefs. Unfortunately, to this date, research designs are still not able to distinguish offenders’ real beliefs from their post-hoc justifications.

Still in this perspective, Ward (2000; Ward & Keenan, 1999) introduced into the criminological literature the notion of *implicit theories*, hypothesized to reflect underlying beliefs

that would guide individuals' decision-making and objective achievement when offending. These implicit theories would contain a number of distinct mental ideas and constructs, including assumptions about the desires, preferences and beliefs of victims (Ward & Keenan, 1999; Polaschek & Ward, 2002). Although research on implicit theories did not permit to support the idea of existing underlying beliefs, results from thematic studies have however provided evidence for distinct mental ideas or cognitive constructs among various sexual offenders' subsamples (e.g., contact child sexual offenders, Marziano et al., 2006; Paquette et al., 2014; rapists, Longpré & Cortoni, 2019; Polaschek & Ward, 2002; sexual murderers, Beech, Fisher & Ward, 2005; female sex offenders, Beech, Parrett, Ward & Fisher, 2009; Robitaille & Cortoni, 2014; mentally ill offenders, Mannix, Dawson & Beckley, 2013). Some of these cognitions appear to be similar for different subgroups, including the idea that men who sexually offend are entitled to treat their victims as they please (e.g., see *Entitlement* in Ward & Keenan, 1999; Polaschek & Ward, 2002), while others appear to be unique to specific subgroups, such as the idea exhibited by men with contact offenses against children that sexual activities with children are harmless (e.g., see *Nature of Harm* in Ward & Keenan, 1999). In addition, some cognitions seem to be closely related to some relevant behavioral-risk factors. For example, nurturing the idea of the right to act as one pleases may reflect an antisocial behavioral tendency. Therefore, this could mean that cognitions, depending on their specific content, may have various links with sexual offending behaviors. Thus, while efforts have been made to better understand the various mental ideas or cognitive constructs into sexual offenders' discourse, no study has yet examined whether specific cognitive themes would be associated with offenders' involvement into criminality.

Cognitions Supporting Internet Sexual Offending

Recently, a particular attention has been given to men who sexually offend against using the internet. This subgroup includes both Child Sexual Exploitation Material (CSEM) users and Child Sexual Solicitors (CSS). Despite their common interest for the sexualization of underage people, men with online and those with contact sexual offenses against children were found different in terms of various sociodemographic and psychological variables, including their level of endorsement offense-supportive cognitions as well as their engagement in past and future criminal behaviors (Babchishin, Hanson, & VanZuylen, 2015; Seto & Eke, 2015; Seto, Wood, Babchishin, & Flynn, 2012). As for the nature of their cognitions, some researchers have examined them directly from offenders' discourse but did not investigate the possibility of finding more general underlying cognitive themes (Quayle & Taylor, 2003; Seto et al., 2010). Conversely, those who did examined cognitive themes could only indirectly derived them using secondary data or clinical observations made by professionals working with men with online sexual offenses (Bartels & Merdian, 2016; Kettleborough & Merdian, 2017).

To our knowledge, only Paquette (2018) examined the cognitive themes directly from the discourse of CSEM users and CSS. She found eight themes; some being similar to those found among men with contact sexual offending against children (e.g., see Ward & Keenan's version of *Dangerous world*) or other samples of internet offending population (e.g., see *Nature of harm*; Bartels & Merdian, 2016), and others being unique to her sample (e.g., see *Virtual is not real* below). ***Uncontrollability*** captures the idea that men who offend are unable to control their acts, emotions, or sex drive. Responsibility for their internet illegal behaviors is thus directed towards their victims or external factors. ***Nature of harm*** refers to the belief that internet sexual activities do not harm children; in opposition they can even be beneficial for them. Individuals exhibiting such cognitions tend to recognize that different behaviors can cause various degrees of harm and

some offending behaviors are seen as more or less harmful as others; internet offending is thus perceived less harmful than contact offending against children. *Child as sexual being* refers to the idea that children are sexual beings, capable of giving informed sexual consent, and are as sexually mature as adults. Children are thus perceived as seeking to engage in virtual sexual activities in the same way adults do, including taking part in sexual communications or indecent images trading. *Child as partner* relates to the perception that children and adults can bound on a cognitive, affective and emotional level, thus making friendly or romantic relationships between them appear acceptable. *Dangerous world* refers to the idea that the world is a dangerous place, requiring people to exploit others and prioritize their own interests in order to survive; in opposition, the virtual environment appears safer. Adults are seen as abusive and rejecting, leading men who engage in sexual offense to prefer relationships with children, who are seen as trustworthy, accepting, and reliable. *Entitlement* includes cognitions related to the perception of some men who sexually offend that they are superior to others and have a privileged status that gives them the right to satisfy their needs as they please without respect for their victims. *Virtual is not real* reflects the perception held by some men with online sexual offenses against children that the internet does not represent the reality and its content is unreliable, consisting of either lies or jokes. This is also the idea that it is impossible to know with whom one is chatting with, suggesting that it is impossible to determine if this person is underage. *Internet is uncontrollable* represents the idea that use of the internet and its access are uncontrollable. Men who sexually offend online see the internet as facilitating, if not inciting, sexual offenses by virtue of the access it provides to indecent material or to children themselves.

Are Cognitions of Men With Online Sexual Offenses Criminogenic and If So, Which Ones?

Although the effect size of this association remains small, it was found that endorsing more sexual offense-supportive statements was associated with sexual offending behaviors (Helmus et al., 2013). Such an association assumes cognitive distortions as a unidimensional construct. However, it has also been reported that specific sexual offending subgroups exhibited sometime different and higher levels of cognitions compared to other similar groups (Babchishin et al., 2015; Howitt & Sheldon, 2007). Given this, it may be possible that specific cognitions encompass in Helmus et al.'s meta-analysis are not all criminogenic. To our knowledge, no study has yet investigated the relationships between specific cognitive themes and sexual offending behaviors.

The present study is an exploratory investigation of the associations between cognitions found in the discourse of men who offended against children over the internet and their involvement in criminality. In lights of scientific literature, we aimed at examining whether exhibiting an overall higher number of offense-supporting cognitions is associated with offending behaviors. We also aimed at exploring whether to consider cognitions as a whole (i.e., unidimensional construct) is reasonable or if, instead, a thematic conceptualization of cognitions could better help determine which specific cognitions are criminogenic. Finally, we aimed at testing whether specific cognitive themes are associated with offending behaviors among men who engaged in online sexual offending against children.

Method

Participants

The sample in the present study was composed of 60 French-speaking Canadian men charged with possessing Child Sexual Exploitation Material (CSEM; $n = 20$), Child Sexual Solicitation (CSS; $n = 20$), or both (Mixed; $n = 20$). The mean age of the sample was 39.65 years

($SD = 14.73$, range = 16-70). According to official national and provincial databases, participants had committed 2.68 ($SD = 1.30$) different types of offenses. On average, they had 10.02 ($SD = 19.01$, ranges 1-131) total charges, .22 ($SD = .76$, ranges 0-5) violent charges, and 6.20 ($SD = 12.96$, ranges 1-99) sexual charges. For more details about participants' offenses, see Table 1.

Material

Data for this study were taken from police interviews ($N = 60$) with men accused of online sexual offenses against children. The interviews were conducted by investigators of the Quebec's provincial police (Sûreté du Québec) according to organization procedure. Interviews lasted 3.5 hours on average ($SD = 1$ h 40 min, range 0 h 45 min to 10 h 45 min). Using an inductive Thematic Analysis approach (Braun & Clarke, 2006), interviews were previously analyzed by Paquette (2018) who extracted a total of 1,136 statements indicative of offense-supportive cognitions from offenders' discourse. Interviews' length had no significant impact on the amount of cognitions extracted ($r = .06$, $n.s.$). Each cognitions were coded as for its general meaning and then categorized into the cognitive themes. No missing data and outliers were recorded. Table 2 presents a summary of the categorization of the extracted cognitions as cognitive themes (for more details, Paquette, 2018). Using these data, two measures in the current analysis were: 1) the overall number of offense-supportive statements found in participants' discourse and 2) the number of offense-supportive statements related to each of the eight cognitive themes: *Uncontrollability*, *Nature of harm*, *Child as sexual being*, *Child as partner*, *Dangerous world*, *Entitlement*, *Virtual is not real*, and *Internet is uncontrollable*. Examples of statements associated with each cognitive themes are available in Supplemental Material. The overall and subtotal numbers of offense-supportive statements for each cognitive theme were calculated for the subgroups and for the full sample (see Table 2).

Ethics

Permission to conduct this project was granted by the Sûreté du Québec. The project also received ethics approval from the Ethics Review Board of the Université de Montréal.

Measures of Involvement in Delinquency

In order to examine the associations between men's cognitions and their involvement in delinquency, indicators of criminality were created based on men's official criminal record. The entire criminal record for each offender was collected in 2017 and encompassed all charges recorded before and after their original index online child exploitation offense.

Number of Criminal Charges. Individuals' criminal charges were divided on the basis of whether they constituted sexual, violent, or general offenses. Included under sexual charges were all contact sexual offenses against a minor or an adult, online child sexual solicitation, child sexual exploitation material-related offenses, sexual incitement, sexual harassment, arranging to commit sexual offenses against children, exhibitionism and voyeurism. Included under violent charges were all non-sexual offenses related to threatening to, attempting to, or violating the physical integrity of a person, such as assault, murder, threats, robbery, extortion, and using or brandishing a weapon. Included under general charges were all non-sexual and non-violent criminal offenses, such as theft, mischief, illegal liberty, omissions, use of drugs, etc. The number of sexual, violent and general charges, as well as the total number of all charges were calculated, including the index offense.

Diversity of the Criminal Behaviors. Based on the entire criminal charges, the diversity of individuals' criminal behaviors measures whether, in addition to their sexual offenses, they were also engaged other types of crimes; i.e., violent and general offenses. This measure calculates the number of types of crimes committed, ranging from 1 to 3 different types.

Nature of Contact with the Victims. Another indicator of individuals' involvement in delinquency was measured by the nature of contact with the victims. We distinguished men with online sexual offending without direct victims (i.e., none) from those with virtual victims only (i.e., virtual) and those with offline direct victims (i.e., contact). The first category of individuals included those who had only committed CSEM-related offenses as the children victims depicted in the materials were not considered to be direct victims due to absence of interaction between men who offended and the victims. The second group included individuals who strictly had virtual interactions with the victims, thus those who had engaged in online sexual solicitation with minors. Finally, the last group had engaged in contact sexual offenses, thus directly interacting offline with the victims.

Analyses

For the purpose of this study and given its exploratory nature, two analytical strategies were followed. Because the data respected the assumption of normality, parametric approach was taken. The data were analyzed with SPSS version 25 (SPSS, Chicago, IL) and bivariate Pearson product-moment correlations were conducted. Pearson Correlations are parametric procedures that measure the strength and direction of a supposed linear relationship between continuous variables. This procedure aimed at examining the associations between cognitions and indicators of criminality as well as the interrelations between all cognitive themes. A One-Way Anova was also conducted to measure differences in terms of cognitions between three groups; i.e., men without direct victims, those with only virtual ones and those with direct victims.

Results

Men who engaged in online sexual offenses against children expressed an average of 18.93 offense-supportive statements ($SD = 10.96$, range = 3-44). The total number of cognitive

statements as well as the subtotal numbers for each of the eight cognitive themes felt between the recommended Skewness [-1.96 , +1.96] and Kurtosis [-2 , +2] range for normal distribution. The most common cognitive themes were *Virtual is not real* and *Nature of harm*, with averages of 6.02 and 4.98 respectively. The least common themes were *Child as partner* and *Dangerous world*, with averages of .47 and .72 respectively.

The results of the Pearson product-moment correlations between the cognitive themes and the indicators of criminality are presented in Tables 3 and 4. No significant correlation was found between the overall number of cognitions and any of the indicators of criminality. Significant correlations were found between some cognitive themes. *Uncontrollability* showed correlations with *Nature of harm* ($r = .32, p \leq .05$), *Child as partner* ($r = .30, p \leq .05$), and *Internet is uncontrollable* ($r = .68, p \leq .01$). Analyses also revealed correlations between *Child as sexual being* and *Child as sexual partner* ($r = .30, p \leq .05$), between *Nature of harm* and *Dangerous world* ($r = .28, p \leq .05$), between *Nature of harm* and *Internet is uncontrollable* ($r = .32, p \leq .05$), between *Child as sexual being* and *Virtual is not real* ($r = .38, p \leq .01$), and *Virtual is not real* and *Internet is uncontrollable* ($r = .26, p \leq .05$).

Few correlations were observed between the cognitive themes and the indicators of criminality: *Child as sexual being* was negatively correlated with the number of CSEM-related charges ($r = -.26, p \leq .05$), *Dangerous world* with the number of violent charges ($r = .37, p \leq .01$), and *Entitlement* with both the numbers of other sexual offenses ($r = .48, p \leq .01$); and the diversity of the criminal behaviors ($r = .28, p \leq .05$).

One-Way Anova between the cognitive themes and type of victims are presented in Table 5. *Child as sexual being* ($F(2, 57) = 4.07, p \leq .01$) was found to be related to a higher number of direct victims.

Discussion

This study investigated the associations between cognitions and indicators of criminal involvement among a sample of men with either or both online child sexual exploitation material and child sexual solicitations offenses. Overall, our results showed no association between the overall number of cognitions extracted from men's discourse and their criminality, partial correlations between cognitive themes, and few associations were found between the cognitive themes and indicators of criminal behaviors.

Studies on offense-supportive cognitions found that endorsing a higher number of cognitions was associated with contact sexual offending (Helmus et al., 2013). Contrary to this finding, in the current study, exhibiting more online sexual offense-supportive cognitions was not associated with any criminal measures, whether it was the total number of sexual, violent, general charges or even the diversity of criminal behaviors. This finding may be explained by the fact that, in the current study, we were unable to measure offense-supportive cognitive themes using validated psychometric tools. Alternatively, this may suggest that, taken as a unidimensional construct, online sexual offending cognitions may not be criminogenic. Aiming at further investigated this cognitive construct, we looked at the relationship between the cognitive themes. Few significant associations were found, thus indicating that only some themes may be similar in meanings such as the ideas that men who sexually offend over the internet feel they have no control over themselves (*Uncontrollability*) and over the internet (*Internet in uncontrollable*).

We examined whether the extent, nature and diversity of criminal behaviors were associated with different cognitive themes. We found evidence suggesting that some cognitive themes may somehow be related to the two main dimensions associated with the onset and

persistence of sexual offending – an antisocial orientation and an atypical sexuality (e.g., Brouillette-Alarie, Babchishin, Hanson, & Helmus, 2016; Hanson & Morton-Bourgon, 2005; Olver, Klepfisz, Stockdale, Kingston, Nicholaichuk, & Wong, 2016; Seto, 2008; 2017) – and thus may be defined as criminogenic. Our analyses revealed a negative association between cognitions supporting the sexualization of children and the number CSEM-related charges as well as positive one between this cognitive theme and the commission of contact sexual offenses against children. Given this, *Child as sexual being* may reflect a specific criminogenic cognition associated with contact sexual abuse of children rather than with engaging in sexual offending over the internet. Interestingly, this cognition was more frequent among men who had engaged in online child sexual solicitation than among CSEM users. Given that victims of sexual solicitation tend to be older than victims depicted in sexual exploitation material (Wolak, Finkelhor, & Mitchell, 2005; Wolak, Finkelhor, Mitchell, & Ybarra, 2008), this may explain why some CSS tend to perceived youths as more closely resemble to adults and are more sexually mature than CSEM users.

As men who sexually offend against children tend to have an atypical sexuality characterizes by a sexual interest for children or a tendency to overthink about the sexuality and, as such an atypical sexuality is associated with sexual offending behaviors (Hanson & Morton-Bourgon, 2005; Mann, Hanson, & Thornton, 2010), we suggest that the *Child as Sexual Being* cognitive theme may reflect a criminogenic belief useful for one to act upon his atypical sexuality and perhaps to engage in contact abuse of children. This suggestion would be coherent with Seto's Motivation-Facilitation Model (2008, 2017) of sexual offending in which he stipulates that facilitating factors (i.e., some specific cognitive themes in the current study) are necessary for a motivating factor (i.e., atypical sexuality) to lead to sexual offending. Future

research should investigate the role of such cognitions in the processes leading to the use of CSEM, the sexual solicitation of children over the internet as well as the contact sexual abuse of children; all subgroups of offenders being different in terms of this cognitive theme.

Further, we found evidence for associations between the number of criminal charges and diversity of crimes committed with the endorsement of *Entitlement* – the idea that some men have a superior status allowing them to act as they please without considerations for others – and, *Dangerous World* – the cognition supporting the idea that one must exploit others and prioritize their own interests in order to survive in such a dangerous world. Again, we suggest that these cognitions are related to individual's antisocial tendency which could be reflective of a lack of concern for others, another risk factor associated with sexual offending (Mann et al., 2010). Alternatively, the idea that the world is dangerous could reflect one's difficulty to engage in healthy relationships with adults, thus reflecting a problematic belief related to another meaningful risk factor; the lack of intimate relationships with adults (Mann et al., 2010). These results are consistent with previous research showing that hostile, self-centered, and antisocial cognitions are associated with delinquency (Polaschek & Ward, 2002). Marshall and Barbaree (1990) hypothesized that coercive individuals who grow up in a dysfunctional social environment tend to perceive the world as a dangerous place in which others cannot be trusted, which in turn prevents them from developing healthy intimacy and reduces their inhibitions against antisocial, violent, and coercive behaviors.

Finally, neither of the *Uncontrollability*, *Nature of Harm*, *Virtual is Not Real* nor *Internet is Uncontrollable* cognitive themes were associated with any of the criminal indicators, thus suggesting that these cognitions may not be criminogenic. To our understanding, these cognitions are not related to any known factors of sexual offending. They might instead reflect a

non-criminogenic post-hoc excuses or justifications used by individuals to avoid negative consequences associated with their illegal behaviors. *Child as partner* was also found unrelated with criminality which appears surprising since this cognition is reflective of an emotional congruence with children on the part of men who sexually offend against children. As emotional congruence with children constitutes a risk factor of sexual offending (Mann et al., 2010), it is unclear what our finding means. Additional research is needed to clarify the links between these cognitive themes and sexual offending against children.

This study could only provide little empirical evidence supporting the hypothesis of criminogenic cognitions. The intercorrelations found between some cognitive themes, in addition to the weak associations between cognitions and offending behaviors have several implications, ranging from our ability to adequately assess offense-supportive cognitions, to the criteria used to define such cognitions, to the presumed correlations between offense-supportive statements and latent cognitive structures.

Research Implications

Offense-supportive statements have been described as the manifest result of underlying structural structures (Ward, 2000; Ward & Keenan, 1999), sometimes labelled as implicit theories, or cognitive themes, which are hypothesized to be implicated in the processes leading to sexual offending (Ward, Hudson, Johnston, & Marshall, 1997). However, the absence of demonstrable relationships between cognitive themes and online sexual offenders' criminal involvement provides a challenging argument against the use of such classifications, at least from an empirical point of view. With cognitive typologies, the measurement strategy focuses on categorical boundaries between different themes. If cognitive themes are latent structures observable in an individual's discourse, they should have some predictive power or, at least,

show links with criminal behaviors. While different cognitive themes are generally founded more frequently among some subgroups of men who sexually offend and sometimes among individuals within a particular subgroup, no studies have found that these themes have predictive power nor associations with criminality. In the current study, few cognitive themes were found linked with offending behaviors and those who were demonstrated weak associations. Taken together, this suggests that cognitive classifications explained the variance observed in the discourse of men who offend but are not useful in actually predicting behaviors. This lack of association may be the result of an adequation between surface cognitions and the latent cognitive themes that these surface cognitions are resulting from. By creating different themes, we assume that they actually exist on a latent level (e.g., Ward & Keenan, 1999). While they seem different from a theoretical point of view, no study has found evidence that these cognitive themes exist and are distinct. At this point, assuming that surface cognitions are taping in cognitive themes is a leap of faith. Results across studies suggest that the creation of non-existent joints may limit the predictive utility of offense-supportive cognitive themes. This may explain why dimensional scales such as the MOLEST scale was found related to the number of victims or the intensity of the abuse (Bumby, 1996), but not to particular offense-supportive cognitive themes.

Cognitive classifications, such as the implicit theories model, still have good face validity, as they appear to measure distinct patterns of ‘observable’ cognitive products. Furthermore, they have good content validity as they adequately reflect problematic behaviors and thinking in the discourse of men who sexually offend, are supported by a strong theoretical background and by good empirical research protocols, and present interesting construct validity. Finally, they have good external validity as they correlated with widely recognized cognitive

scales (e.g., Paquette & Cortoni, 2019). Our results show, however, that although cognitive themes have been described as intimately related to sexual offending and show good validity in many areas, their criminogenic nature remains uncertain. Future research should therefore focus on determining the relationship between cognitive classifications and their role in the offending process. It should also attempt to determine how they are related to psychological correlates implicated in the offending process, including indicators of atypical sexuality and antisocial tendencies.

Clinical Implications

The categorization of offense-supportive statements as cognitive themes is still relevant from a clinical perspective as it provides a more refined understanding of relevant problematics among men who sexually offend against children. One of the major problems with studies on the cognitions of men who sexually abuse is the lack of precise definition for what constitutes problematic or criminogenic, as opposed to non-criminogenic, cognitions. Problems in operationalization of a psychological construct may lead to over-pathologizing and to considering all aspects of offending men's cognitions as problematic (Mann & Barnett, 2017). It has been suggested that some offense-supportive statements may have healthy implications for offenders while others are not related to sexual offending behaviors (Maruna & Mann, 2006). Minimizing our darkest actions is a normal process that is also present among non-offenders (Ward & Casey, 2010). Therefore, the discourse may diverge to some degree from the person's 'true' understanding of the situation. To circumvent this normative judgement, researchers have proposed to use a different terminology such as *deviant cognitive practices* (Ward & Casey, 2010), *aetiological cognitions* (Ó Ciardha & Gannon, 2011) – and we are now suggesting *criminogenic cognitions* – to discuss about those that contributes to the sexual offending process

or general criminality. The focus should therefore be on these *criminogenic cognitions* used by men who sexually offend to support their offenses instead of being on the vague terms *cognitive distortions*.

Previous studies have found several themes in the discourse of men who sexually offend and it has been suggested that these themes are related to specific offenses (e.g., Bartels & Merdian, 2016; Longpré & Cortoni, 2019; Paquette, 2018). For example, men with contact sexual offenses against children were found to exhibit cognitions related to their victims while those with online offenses exhibit cognitions related to their use of the internet (Paquette & Cortoni, 2019). Results from the present study are consistent with these findings, as *Child as Sexual Being* was found associated with the offline direct victimization of child victims and more frequent among men who engage in child sexual solicitation than among CSEM users. The correspondence between types of cognitions and offending behaviors suggests that some themes, or at least some cognitive aspects, may be worth investigating in a treatment context. Those results are in line with Ó Ciardha and Gannon (2011) who proposed the idea of working on the entrenched beliefs (cognitive themes) that have likely play a role in the offending process. Conceptualization of offense-supportive cognitions as cognitive themes may provide relevant indicators of treatment targets (Beech, Ward, & Fisher, 2006; Ó Ciardha & Gannon, 2011).

Other clinical implications relate to the assessment of the level of problematic cognitions. Endorsing higher levels of offense-supportive statements has been found associated with sexual offending behaviors (Helmus et al., 2013), but this association was nevertheless weak. One possible explanation for such weak association may be that scales designed to assess the level of offense-supportive cognitions were comprised of both criminogenic and non-criminogenic cognitions. This thus highlighted the need for robust tools that solely assess criminogenic

cognitions. In previous studies, men who engage in online sexual offenses against children were found to exhibit fewer offense-supportive cognitions than those who engage in contact sexual offenses against children (Babchishin et al., 2015), but only when assessed using tools developed among men with contact offenses. When assessed using a tool specifically designed to measure online sexual offense–supportive cognitions, men with online offenses against children were found to exhibit more offense-supportive cognitions than those with contact sexual or non-sexual offenses (Paquette & Cortoni, 2019). This suggests that assessment of offense-supportive cognitions should to be conducted using tools designed to reflect the exact cognitive contents of different sexual offending subgroups. Cognitive themes provide a wide range of cognitive contents that should be considered when developing assessment tools.

Limitations of This Study

Cognitive themes used in the current study were based on men’s discourse. Thus, as most previous ones that have investigated the underlying cognitive structures, this raises an important question: the extent to which cognitive themes reflect offenders’ true beliefs. Offense-supportive statements in the discourse of men who offend may be post-hoc non-criminogenic justifications, and this may be even truer in the current study as cognitive themes were extracted using police interviews. As a previous study found similar types of cognitions using both clinical and police samples (Seto et al., 2010), it is however unlikely that the current findings were much influenced by the context in which the interviews were conducted. Future studies investigating offense-supportive cognitions should nevertheless consider other types of measures, perhaps implicit ones, to counteract possible biases in studies based on self-reported discourse.

Another limit of this study relates to a lack of variety among the criminal behaviors analyzed, as the sample includes only men who had committed online sexual offenses against

children. Including comparison groups such as non-sexual offenders, men in clinical settings who are sexually attracted by children, or individuals from the general population might provide more information and lead to a better understanding of the association between cognitive themes and sexual offending behaviors against children. It is therefore recommended that comparison groups be introduced in future research protocols.

Further, data used to measure the criminal involvement included both past and index charges, thus limiting conclusions drawn from our analyses. While previous studies found links between cognitions to sexual recidivism, it remains unclear whether certain beliefs would exist prior to the commission of the sexual offenses and thus would be associated with the onset of sexual offending. Due to the nature of our data, we could not make such a distinction. Future research should investigate the associations of offense-supportive cognitions with both the etiology and maintenance of online sexual offending against children.

Finally, with a sample of 60 men, it is clear that additional research with larger samples are required to confirm or infirm results found in the current study. Some findings in the present study are based on small subsamples and our results need to be interpreted cautiously. The sample sizes were, however, mostly sufficient for an explorative study and our results should serve as the pinpoint for future investigations of the associations between cognitive themes and involvement in delinquency on larger samples. Thus, our results are explorative by nature and need to be interpreted accordingly. Replication is required.

Conclusion

This study aimed at exploring whether there were associations between the cognitive themes of men who sexually exploit children over the internet and their involvement in crime. While our findings provide insights into the use of cognitive typologies, very few relationships

were found between cognitive themes and criminal behaviors. Those found were, however, reflective of the two dimensions of risk, suggesting that criminogenic cognitions may be directly related to factors associated with sexual and general criminality. Despite a lack of strong associations between the different cognitive themes and offending behaviors, cognitive typologies remain useful in determining treatment and providing insights into the idiosyncratic thoughts that are involved in sexually offending behaviors. Future research should further investigate the clinical utility of cognitive typologies by assessing whether there are changes in endorsing particular cognitive themes following treatment.

Compliance with Ethical Standards

Conflict of interest: The authors declare that they have no conflict of interest.

Ethical Approval: All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Declaration of Helsinki and its later amendments or comparable ethical standards.

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Table 1.

Online Sexual Offending Subgroups' Criminal Offenses Descriptive Statistics

Subgroups	CSEM users (<i>n</i> = 20)	CSS (<i>n</i> = 20)	Mixed (<i>n</i> = 20)
Criminal Charges	$\bar{\chi}$ (<i>SD</i> ; range)	$\bar{\chi}$ (<i>SD</i> ; range)	$\bar{\chi}$ (<i>SD</i> ; range)
Child Luring	-	2.75 (2.85; 1-11)	4.90 (14.89; 1-68)
CSEM	3.00 (2.05; 1-7)	-	2.80 (3.59; 1-17)
Contact Sex	.90 (1.71; 0-5)	.55 (1.19; 0-5)	.25 (.55; 0-2)
Sexual Incitement	.20 (.62; 0-2)	.70 (1.17; 0-5)	.80 (3.12; 0-14)
Other Sexual	.20 (.70; 0-3)	1.25 (2.97; 0-12)	.30 (.57; 0-1)
Violence	.30 (1.13; 0-5)	.30 (.66; 0-2)	.05 (.22; 0-1)
General (Non-Sex/ Violence)	4.65 (11.84; 0.53)	1.80 (2.71; 0-9)	4.35 (11.33; 0-42)

CSEM = child sexual exploitation material; CSS = participated in child sexual solicitation;

Mixed = had committed both type of online sexual offenses.

Table 2.

Number of Extracted Offense-Supportive Statements Categorized as Cognitive Theme per Subgroup of Men with Online Sexual Offenses

Subgroups	CSEM users	CSS	Mixed	Total
Cognitive Themes	(<i>n</i> = 20)	(<i>n</i> = 20)	(<i>n</i> = 20)	(<i>N</i> = 60)
Uncontrollability	66	41	41	148
Nature of harm	122	70	107	299
Child as sexual being	17	72	43	132
Child as partner	10	7	11	28
Dangerous world	5	14	24	43
Entitlement	21	32	17	70
Virtual is not real	82	152	127	361
Internet is uncontrollable	25	14	16	55
Total	348	402	386	1136

CSEM = child sexual exploitation material; CSS = participated in child sexual solicitation;

Mixed = had committed both type of online sexual offenses.

Table 3.

Pearson Product-Moment Correlations Between Cognitions and the Number of Criminal Charges and Diversity of Crimes Committed

	Number of Criminal Charges								Diversity of	
	Sexual Offenses						Non-Sexual		All	Crimes
							Offenses			Committed
	Child Luring	CSEM	Contact	Incitement	Other	All	Violent	General		
All cognitions	-.15	-.11	.04	-.09	.04	-.13	.12	-.07	-.12	.03
Uncontrollability	-.18	.11	-.02	-.14	-.12	.14	.14	.04	.17	-.15
Nature of harm	-.08	.14	.11	-.04	-.14	.07	.05	.03	.01	.14
Child as sexual being	-.06	-.26*	.16	.00	.25	.05	.12	.03	.09	.02
Child as partner	-.09	-.01	-.06	-.10	-.03	.09	.02	.19	.04	.08
Dangerous world	-.05	-.09	.08	-.03	.12	.03	.37**	.09	.17	.23
Entitlement	-.04	-.17	.13	.06	.48**	.03	.16	.04	.05	.28*
Virtual is not real	-.09	-.20	-.14	-.08	-.10	.14	.19	.01	.19	-.12
Internet is uncontrollable	-.03	.13	.01	.01	.07	.02	.04	.03	.03	-.09

* = $p \leq .05$, ** = $p \leq .01$

Table 4.

Pearson Product-Moment Intercorrelations Between Cognitive Themes

	2	3	4	5	6	7	8
1. Uncontrollability	.32*	.12	.30*	.02	.20	.20	.68**
2. Nature of harm		.06	.22	.28*	.13	.24	.31*
3. Child as sexual being			.30*	.16	.19	.38**	.04
4. Child as partner				.05	.10	.10	.27*
5. Dangerous world					.19	.08	.22
6. Entitlement						.03	.12
7. Virtual is not real							.26*
8. Internet uncontrollability							

* = $p \leq .05$ ** = $p \leq .001$

Table 5.

One-Way Anova Between the Cognitive Themes and the Nature of Contact with the Victims

Cognitive Themes	None (<i>n</i> = 15)	Virtual (<i>n</i> = 30)	Contact (<i>n</i> = 15)	p	Effect Size (η^2)
Uncontrollability	3.33	2.33	1.87	.30	.17
Nature of harm	5.27	4.80	5.07	.92	.06
Child as sexual being	.67	2.03	4.07	.01	.39
Child as partner	.60	.27	.73	.25	.12
Dangerous world	.13	.93	.87	.16	.17
Entitlement	1.13	1.00	1.53	.59	.10
Virtual is not real	4.40	7.37	4.93	.10	.35
Internet is uncontrollable	1.27	.77	.87	.67	.09